

Title (en)

WORKING MACHINE FEED SHAFT CONTROL METHOD AND FEED SHAFT CONTROL DEVICE

Title (de)

ZUGSPINDELSTEUERUNGSVERFAHREN UND ZUGSPINDELSTEUERUNGSVORRICHTUNG FÜR ARBEITSMASCHINE

Title (fr)

PROCÉDÉ DE COMMANDE D'ARBRE D'ALIMENTATION DE MACHINE À TRAVAILLER ET DISPOSITIF DE COMMANDE D'ARBRE D'ALIMENTATION

Publication

EP 2966521 A4 20161123 (EN)

Application

EP 14761136 A 20140228

Priority

- JP 2013045163 A 20130307
- JP 2014055130 W 20140228

Abstract (en)

[origin: EP2966521A1] A working machine feed axis control device: disposes a velocity feedback loop and forms a cascade coupling on the inner side of a location feedback loop; comprises a velocity gain setting apparatus (30) which multiplies the output of the velocity feedback loop by a first gain (kv), and a location gain setting apparatus (31) which multiplies the output of the location feedback loop by a second gain (kp); subtracts the output of the velocity gain setting apparatus (30) and the output of the location gain setting apparatus (31) from a torque instruction (Ä); and outputs the remaining torque instruction (Ä) to a subject to be controlled (27).

IPC 8 full level

G05B 19/404 (2006.01); **B23Q 15/013** (2006.01); **G05B 19/19** (2006.01); **G05B 19/416** (2006.01); **G05D 3/12** (2006.01)

CPC (source: CN EP US)

G05B 19/19 (2013.01 - CN EP US); **G05B 19/4166** (2013.01 - CN EP US); **G05B 2219/32276** (2013.01 - US);
G05B 2219/42063 (2013.01 - CN EP US)

Citation (search report)

- [Y] US 5384525 A 19950124 - KATO TETSUAKI [JP]
- [IA] TUNGPATARATANAWONG S ET AL: "Force sensor-less workspace impedance control considering resonant vibration of industrial robot", INDUSTRIAL ELECTRONICS SOCIETY, 6 November 2005 (2005-11-06), IECON 2005. 31ST ANNUAL CONFERENCE OF IEEE, IEEE, PISCATAWAY, NJ, USA, pages 1878 - 1883, XP010876402, ISBN: 978-0-7803-9252-6, DOI: 10.1109/IECON.2005.1569191
- [Y] MARK W. SPONG AND M. VIDYASAGAR: "Robot Dynamics and Control", 1989, JOHN WILEY AND SONS, New York, ISBN: 047161243X, pages: 216 - 240, XP002762561

Citation (examination)

- JP 3454616 B2 20031006
- ALEXANDRA AST ET AL: "Flatness-Based Control of Parallel Kinematics using Multibody Systems - Simulation and Experimental Results", ARCHIVE OF APPLIED MECHANICS, SPRINGER, BERLIN, DE, vol. 76, no. 3-4, 18 March 2006 (2006-03-18), pages 181 - 197, XP019443161, ISSN: 1432-0681, DOI: 10.1007/S00419-006-0014-Z
- See also references of WO 2014136686A1

Designated contracting state (EPC)

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DOCDB simple family (application)

EP 14761136 A 20140228; CN 201480011679 A 20140228; JP 2014055130 W 20140228; JP 2014534848 A 20140228; US 201414772678 A 20140228